

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (new) A circuit combination, comprising:
a composite rectifying charge storage device including a rectifier structure fabricated with a common conductor forming a side of the rectifier structure, and a capacitor structure fabricated as a single unitary structure with the rectifier structure such that the capacitor structure incorporates the common conductor of the rectifier structure as a side of the capacitor structure, the capacitor structure to receive the rectified current from the rectifier structure over the common conductor; and
an antenna coupled to said composite device.
2. (new) The circuit combination of claim 1, wherein said antenna is adapted to extract power from a remote energization field for energizing said composite device.
3. (new) The circuit combination of claim 1, further including a circuit component coupled to said composite device.
4. (new) The circuit combination of claim 3, wherein the circuit component is powered by said composite device.
5. (new) The circuit combination of claim 4, wherein said circuit component comprises an RFID tag.
6. (new) The circuit combination of claim 5, wherein said RFID tag further includes signal transmitter means coupled to said antenna.

7. (new) The circuit combination of claim 6, wherein said signal transmitter means is coupled to said antenna by variable loading through said composite device.

8. (new) The circuit combination of claim 6, wherein said antenna comprises a patch antenna, and further wherein signal transmitter is coupled directly to said patch antenna.

9. (new) The circuit combination of claim 3, wherein said circuit component comprises a signal transmitting element.

10. (new) The circuit combination of claim 3, wherein said circuit component comprises a sensor.

11. (new) The circuit combination of claim 10, wherein said circuit component comprises a pressure sensor.

12. (new) The circuit combination of claim 10 wherein said circuit component comprises means responsive to a target chemical agent.

13. (new) The circuit combination of claim 1, wherein said capacitor structure comprises said common conductor, a second conductor, and a dielectric material disposed therebetween, said dielectric material incorporating a sensor for monitoring a target parameter.

14. (new) The circuit combination of claim 13, wherein said sensor comprises a pressure responsive elastomer incorporated into said dielectric material.

15. (new) The circuit combination of claim 13, wherein said sensor comprises an elastomer material incorporated into said dielectric material and

adapted to undergo a physical size change in response to the presence of a target chemical agent.

16. (new) The circuit combination of claim 13, wherein said sensor comprises a polymer material incorporated into said dielectric material and adapted to undergo electrical change in response to the presence of a target chemical agent.

17. (new) The circuit combination of claim 3, wherein said circuit component comprises at least one photoemissive component.

18. (new) The circuit combination of claim 17, wherein said at least one photoemissive component comprises a light emitting diode.

19. (new) The circuit combination of claim 17, wherein said at least one photoemissive component comprises a light emitting capacitor.

20. (new) The circuit combination of claim 1, wherein said composite device and said antenna are carried on a common substrate.

21. (new) The circuit combination of claim 20, wherein said common substrate is a flexible substrate.

22. (new) The circuit combination of claim 20, wherein said capacitor structure comprises said common conductor, a second conductor, and a dielectric material therebetween, said substrate being incorporated into said dielectric material.

23. (new) The circuit combination of claim 20, wherein said common substrate comprises a flexible wristband.

24. (new) The circuit combination of claim 1, further including an AC field signal coupled to said antenna.

25. (new) The circuit combination of claim 23, wherein said AC field signal comprises an inductively coupled signal.

26. (new) The circuit combination of claim 24, wherein said AC field signal comprises an electromagnetic signal.

27. (new) A circuit combination, comprising:

a composite rectifying charge storage device comprising a unitary element including a rectifier, a common conductor connected to one side of said rectifier, and a capacitor incorporating said common conductor;

an antenna coupled to said composite device for energizing said composite device by extracting power from a remote energization field; and
at least one circuit component coupled to said composite device.

28. (new) The circuit combination of claim 27, wherein said circuit component comprises an RFID tag.

29. (new) The circuit combination of claim 28, wherein said RFID tag further includes signal transmitter means coupled to said antenna.

30. (new) The circuit combination of claim 27, wherein said circuit component comprises a signal transmitting element.

31. (new) The circuit combination of claim 27, wherein said circuit component comprises a sensor.

32. (new) The circuit combination of claim 27 wherein said circuit component comprises at least one photoemissive component.

33. (new) The circuit combination of claim 32, including a plurality of photoemissive elements emitting different colors or wavelengths.

34. (new) The circuit combination of claim 27, further including a common substrate carrying said composite device and said antenna.

35. (new) The circuit combination of claim 34, wherein said capacitor structure comprises said common conductor, a second conductor, and a dielectric material therebetween, said common substrate being incorporated into said dielectric material.

36. (new) The circuit combination of claim 34, wherein said common substrate comprises a flexible wristband.

37. (new) The circuit combination of claim 27 further including an AC field signal coupled to said antenna.

38. (new) A circuit combination, comprising:

a composite rectifying charge storage device comprising a unitary element including at least one rectifier component, a common conductor connected to one side of said at least one rectifier component, and a capacitor incorporating said common conductor;

an antenna coupled to said composite device for energizing said composite device by extracting power from a remote energization field; and

at least one circuit component electrically coupled to said composite device.

39. (new) A circuit combination, comprising:

a stacked series of composite rectifying charge storage devices each comprising a unitary element including a rectifier, a common conductor connected to one side of said a rectifier component, and a capacitor incorporating said common conductor and a second conductor and a dielectric material therebetween;

said stacked series of composite devices including a first composite device and a last composite device; and

a plurality of antennae each coupled to a respective associated one of said composite devices for energizing said associated one of said composite devices by extracting power from a remote energization field to produce an individual voltage output across said common conductor and said second conductor of each one of said composite devices;

said common conductor of said first composite device being coupled to said second conductor of the successive composite device in said stacked series;

whereby a stacked output voltage representing the sum of said individual output voltages is provided across said common conductor of said last composite device and said second conductor of said first composite device.

40. (new) The circuit combination of claim 39, wherein said last composite device comprises said successive composite device.

41. (new) The circuit combination of claim 39, wherein said common conductor of said successive composite device is coupled to said second conductor of said last composite device.

42. (new) The circuit combination of claim 39, wherein each of said antennae comprises a directional antenna.

43. (new) The circuit combination of claim 39, wherein said antennae are electrically isolated.